

### **REMARKS/ARGUMENTS**

With this Amendment, Applicant amends claims 1, 15 and 17 and cancels claims 3, 16 and 20 without prejudice or disclaimer. Additionally, Applicant adds claims 21-27. No new matter is added. Therefore, claims 1-2, 4-15, 17-19 and 21-27 are all the claims currently pending in the application. Based on the foregoing amendments and the following remarks, Applicant requests reconsideration of the application and allowance of the claims.

#### **I. Rejection of Claims 1-20 Under 35 U.S.C. § 102(e)**

Claims 1-20 stand rejected under 35 U.S.C. § 102(e) as being allegedly anticipated by Kim et al. (U.S. Patent Appln. Publn. 2003/0128769; hereinafter “Kim”)

Claim 1, as herein amended, requires “[a] radio communication system having a multiple-antenna transmitter that selectably transmits data at least from a first transmit antenna transducer and at least a second transmit antenna transducer for communication to a receiver, an apparatus comprising: an encoder which encodes the data, the data encoded comprises a systematic part and a non-systematic part; a determiner at least adapted to receive indications of *channel conditions of each channel* upon which data is transmitted by each of the first and at least second transmit antenna transducers, respectively, said determiner for determining at least relative channel qualities of *each of the channels*; and a data assignor coupled to said determiner to receive indications of determinations made thereat, said assignor for assigning the systematic part of the data encoded by the encoder to at least one of the first and at least second transmit antenna transducers that exhibits better channel qualities, wherein the *indications of the channel conditions* to which said determiner is adapted to receive *comprise indications of aggregated energy levels of the data* detected at the receiver.”

Applicant respectfully submits that Kim does not teach or suggest the above features of amended claim 1. In contrast to amended claim 1, Kim, at best, describes that the transmission antennas 72, 74, 76 and 78 disclosed therein have transmission condition patterns such as, for example, “H,” “M” and “L” and “x” “where ‘M’ means a medium transmission condition, ‘L’ means a low transmission condition (poor reliability), ‘H’ means a high transmission condition (high reliability) and ‘x’ represents a bad transmission condition which transmission is impossible. (paragraph [0054] of Kim)

In order to determine the transmission conditions of the transmission antennas 72, 74, 76, and 78, Kim, at best, describes that the transmission/reception antenna array disclosed therein “converts a MIMO system into multiple SISO ... systems by Water pouring, and calculates transmission power of each of the transmission antennas” and “determines a transmission condition of each transmission antenna which is used to determine a data group [of bits] to be transmitted by the transmission antennas 72, 74, 76 and 78.” In this regard, Kim explains that “[t]he Water pouring increases channel capacity by assigning more transmission power to a channel with a good condition.” (paragraph [0098] of Kim) Kim further explains that “[a] transmission condition is determined by calculating power of the transmission antennas 72, 74, 76 and 78” and “[s]uch determined transmission conditions for the respective transmission antennas are transmitted to a Node B” “in order to transmit data to a UE.” (paragraphs [0098] and [0099] of Kim)

Given that Kim, at best, discloses that the transmission conditions of the transmission antennas 72, 74, 76 and 78 are determined by calculating the power of each of the transmission antennas in order to transmit certain bits of data across a transmit antenna with a transmission condition of “H,” for example, Kim does not mention, teach or suggest any indications of channel conditions which comprises indications of *aggregated energy levels of the data* detected at the UE, as required by claim 1. Rather, Kim, at best, discloses that “information” relating to “a transmission condition” which “determined by calculating transmission power of the transmission antennas 72, 74, 76 and 78” [of the Node B], is transmitted [from the UE] to the Node B.” (paragraph [0098] of Kim) However, as known to those skilled in the art, transmission of a transmission condition such as “H,” “M,” “L” and “x” based on the transmission power of a respective transmission antenna 72, 74, 76 and 78 of “a Node B (or a transmitter)” does not teach or suggest determining at least relative channel qualities of each of the channels based on indications of the channel conditions ... compris[ing] indications of aggregate energy levels of the data detected at a UE, as required by claim 1.

Nowhere in Kim is there any mention, teaching or suggestion, relating to usage of aggregated energy levels of transmitted data that is detected at a receiver as indications of channel conditions used by a determiner to determine relative channel qualities of each channel upon which data is transmitted, as required by claim 1.

Based on at least the foregoing, Applicant respectfully submits that Kim does not teach or suggest each and every feature of claim 1. Applicant therefore respectfully requests the Examiner to reconsider and withdraw the § 102(e) rejection of claim 1 and its dependent claims 2 and 4-14.

Since claim 15 contains features that are analogous to, though not necessarily coextensive with the features recited in claim 1, Applicant respectfully submits that claim 15 and its dependent claims 17-19 are patentable at least for reasons analogous to those submitted for claim 1.

## **II. New Claims**

Applicant has added new claims 21-27 in order to more fully cover various aspects of Applicant's invention as disclosed in the specification. In addition to their respective dependencies from claims 1 and 15, Applicant respectfully submits that claims 21-27 should be allowable because the cited combination of references does not teach or suggest the features of these claims. Support for the new claims 23-27 can be found at least on pg. 5, lines 21-25, pg. 11, lines 7-9, 28-30 and page 12, lines 1-17. Support for new claims 21-22 can be found at least on pg. 6, lines 21-23 and pg. 11, lines 28-30.

## **III. Conclusion**

In view of the foregoing remarks, Applicant respectfully submits that all of the claims of the present application are in condition for allowance. It is respectfully requested that a Notice of Allowance be issued in due course. Examiner Don N. Vo is encouraged to contact Applicant's undersigned attorney to resolve any remaining issues in order to expedite examination of the present application.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 C.F.R. § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

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Respectfully submitted,

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